

Audit



Report

OFFICE OF THE INSPECTOR GENERAL

**DEFENSE BASE REALIGNMENT AND CLOSURE
BUDGET DATA FOR U.S. ARMY RESEARCH
LABORATORY SCALE MODEL FACILITY**

Report No. 96-046

December 14, 1995

Department of Defense

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Acronyms

BRAC	Base Realignment and Closure
COBRA	Cost of Base Realignment Actions
MILCON	Military Construction



INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
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Report No. 96-046

December 14, 1995

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE (COMPTROLLER)
AUDITOR GENERAL, DEPARTMENT OF THE ARMY

SUBJECT: Audit of Defense Base Realignment and Closure Budget Data
for the U.S. Army Research Laboratory Scale Model Facility
(Project No. 5CG-0017.32)

Introduction

We are providing this report for your information and use. Public Law 102-190, "National Defense Authorization Act for Fiscal Years 1992 and 1993," December 5, 1991, directs the Secretary of Defense to ensure that the amount of the authorization that DoD requested for each military construction (MILCON) project associated with Defense base realignment and closure (BRAC) does not exceed the original estimated cost provided to the Commission on Defense Base Closure and Realignment (the Commission). If the requested budget amounts exceed the original project cost estimates provided to the Commission, the Secretary of Defense is required to explain to Congress the reasons for the differences. The Inspector General, DoD, is required to review each BRAC MILCON project for which a significant difference exists from the original cost estimate and to provide the results of the review to the congressional Defense committees. This report is one in a series of reports about FY 1996 BRAC MILCON costs.

Audit Results

The Army identified a valid BRAC construction requirement, adequately documented the basic facility requirement, and considered existing facilities when planning for the Scale Model Facility, project 27365. The budget data applicable to the project were reasonable and accurate. We identified no material management control weaknesses associated with the project.

Audit Objectives

The overall audit objective was to determine the accuracy of BRAC MILCON budget data. The specific objectives were to determine whether the proposed project was a valid BRAC requirement, whether the decision for MILCON was supported with required documentation including an economic analysis, and whether the economic analysis considered existing facilities. The audit also assessed the adequacy of the management control program as it applied to the audit objectives.

Scope and Methodology

Audit Scope. We examined the FY 1996 BRAC MILCON applicable documentation for project 27365, resulting from the closure of Woodbridge Research Facility, Woodbridge, Virginia, and realignment to Army Research Laboratory, Adelphi, Maryland. This project is estimated to cost \$1.5 million, for construction of a 14,500 square foot Electromagnetic Scale Model Facility.

Audit Time Period, Standards, and Locations. This economy and efficiency audit was conducted from May through June 1995 in accordance with auditing standards issued by the Comptroller General of the United States as implemented by the Inspector General, DoD. We reviewed supporting documentation dated from October 4, 1977, through June 16, 1995, for the project. We did not use computer-processed data to support audit conclusions because none were available or needed to accomplish the audit objectives. Accordingly, we included tests of management controls considered necessary. Enclosure 1 provides additional information on the BRAC process and the overall scope of the audit of BRAC MILCON costs. Enclosure 3 lists the organizations visited or contacted during the audit.

Management Control Program

DoD Directive 5010.38, "Internal Management Control Program," April 14, 1987, requires every DoD organization to have in place management controls over operations and to perform regular self-evaluation of those controls.

Scope of Review of the Management Control Program. We reviewed the adequacy of management controls related to the management of the scale model facility program. We did not assess the adequacy of management's self-evaluation of those controls.

Adequacy of Management Controls. Management controls applicable to the scale model facility program were deemed to be adequate in that we identified no material management control weaknesses.

Prior Audits and Other Reviews

Since 1991, numerous audit reports have discussed DoD BRAC issues. Enclosure 2 lists selected DoD reports.

Background

The FY 1991 BRAC Commission recommended the closure of Woodbridge Research Facility, Woodbridge, Virginia, and realignment to Army Research Laboratory, Adelphi, Maryland.

Discussion

In the Implementation Plan of the Army Research Laboratory, dated July 15, 1992, the Army Research Laboratory formally identified a requirement for the Electromagnetic Scale Model Facility. This facility will be realigned from Woodbridge, Virginia, to Adelphi, Maryland. It is needed to support electromagnetic technology development and sustain an electromagnetic nuclear and directed energy weapons capability. The Army has proposed constructing a new building for the facility at an estimated cost of \$1.5 million. This proposal was reviewed by the Office of the Army Judge Advocate General, Administrative Law Division, and by the Office of the Deputy General Counsel (Inspector General), DoD. Both offices agreed that if it was determined to be necessary to relocate the scale model facility to Adelphi in order to accomplish the BRAC Commission recommendations, then the use of BRAC funds would be appropriate.

BRAC MILCON Space Requirements. The Army properly planned, programmed, and documented the requirements for the scale model facility. The DD Form 1391 and the Project Development Brochure are the principal DoD construction project justification documents. No space allowance criteria were used for this unique facility. The projected space requirements for the facility are based on the area needed to operate the equipment for tests and experiments. Adequate existing facilities were not available at an alternate location. The Army's Command, Control and Communication Technology panel and the Navy's Nuclear Weapons Effects subpanel confirmed that no existing installations or activities could perform all functions required of the scale model facility. Additionally, the Army Research Laboratory determined that leasing a facility was not feasible due to the unique structural requirements and security considerations. As a result of the closure of the Woodbridge facility under these circumstances, the documentation adequately supported the requirement for new construction.

BRAC MILCON Cost Requirements. The Army properly supported the cost estimates for the construction of the scale model facility. The Baltimore District of the U.S. Army Corps of Engineers contracted with STV/Lyon Associates to prepare the DD 1391 and Project Development Brochure, which were delivered April 20, 1993. The DD 1391 cost was supported by back-up calculations. These calculations were based upon estimated 1994 cost adjusted for technical complexity and the area cost factor. We performed a comparative analysis of cost estimated by the users with cost data developed by STV/Lyon for the DD 1391. While a line-by-line comparison could not be made, our analysis compared favorably with the DD 1391 prepared by STV/Lyon.

Management Comments

We provided a draft of this report to you on November 7, 1995. Because the report contains no findings or recommendations, comments were not required, and none were received. Therefore, we are publishing this report in final form.

We appreciate the courtesies extended to the audit staff. If you have any questions on this final report, please contact Mr. Raymond A. Spencer, Audit Program Director, at (703) 604-9071 (DSN 664-9071) or Mr. Verne F. Petz, Audit Project Manager, at (703) 604-9078 (DSN 664-9078). Enclosure 4 lists the distribution of the report. The audit team members are listed inside the back cover.

David K. Steensma

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Deputy Assistant Inspector General
for Auditing

Enclosures

Background of Defense Base Realignment and Closures and Scope of the Audit of FY 1996 Defense Base Realignment and Closure Military Construction Costs

Commission on Defense Base Closure and Realignment. On May 3, 1988, the Secretary of Defense chartered the Commission on Defense Base Closure and Realignment to recommend military installations for realignment and closure. Congress passed Public Law 100-526, "Defense Authorization Amendments and Base Closure and Realignment Act," October 24, 1988, which enacted the Commission's recommendations. The law also established the DoD Base Closure Account to fund any necessary facility renovation or MILCON projects associated with BRAC. Public Law 101-510, "Defense Base Closure and Realignment Act of 1990," November 5, 1990, reestablished the Commission. The law also chartered the Commission to meet during calendar years 1991, 1993, and 1995 to verify that the process for realigning and closing military installations was timely and independent. In addition, the law stipulates that realignment and closure actions must be completed within 6 years after the President transmits the recommendations to Congress. The following table summarizes the current estimated costs and net savings for the previous three BRAC actions and the actions recommended in the 1995 Commission decisions:

BRAC Costs and Savings
(Billions of FY 1996 Dollars)

	<u>BRAC Actions</u>		<u>Closure</u>	<u>6-Year</u>	<u>Recurring</u>	<u>Total</u>
	<u>Realign</u>	<u>Closure</u>	<u>Costs</u>	<u>Net</u>	<u>Annual</u>	<u>Savings</u>
				<u>Savings</u>	<u>Savings</u>	
1988	86	59	\$ 2.2	\$ 0.3	\$ 0.7	\$ 6.8
1991	34	48	4.0	2.4	1.6	15.8
1993	<u>130</u>	<u>45</u>	<u>6.9</u>	<u>.4</u>	<u>1.9</u>	<u>15.7</u>
Subtotal	250	152	13.1	3.1	4.2	38.3
1995	<u>113</u>	<u>33</u>	<u>3.8</u>	<u>4.0</u>	<u>1.8</u>	<u>18.4</u>
Total	363	185	\$ 16.9	\$ 7.1	\$ 6.0	\$ 56.7

Required Defense Reviews of BRAC Estimates. Public Law 102-190, "National Defense Authorization Act for Fiscal Years 1992 and 1993," December 5, 1991, states that the Secretary of Defense shall ensure that the authorization amount that DoD requested for each MILCON project associated with BRAC actions does not exceed the original estimated cost provided to the Commission. Public Law 102-190 also states that the Inspector General, DoD, must evaluate significant increases in BRAC MILCON project costs over the estimated costs provided to the Commission and send a report to the congressional Defense committees.

Background of Defense Base Realignment and Closures and Scope of the Audit of FY 1996 Defense Base Realignment and Closure Military Construction Costs

Military Department BRAC Cost-estimating Process. To develop cost estimates for the Commission, the Military Departments used the Cost of Base Realignment Actions computer model (COBRA). COBRA uses standard cost factors to convert the suggested BRAC options into dollar values to provide a way to compare the different options. After the President and Congress approve the BRAC actions, DoD realigning activity officials prepare a DD Form 1391, "FY 1996 Military Construction Project Data," for each individual MILCON project required to accomplish the realigning actions. The computer model provides cost estimates as a realignment and closure package for a particular realigning or closing base. The DD Form 1391 provides specific cost estimates for an individual BRAC MILCON project.

Limitations and Expansion to Overall Audit Scope. Because COBRA develops cost estimates as a BRAC package and not for individual BRAC MILCON projects, we were unable to determine the amount of cost increases for each individual BRAC MILCON project. Additionally, because of prior audit efforts that determined potential problems with all BRAC MILCON projects, our audit objectives included all large BRAC MILCON projects.

Overall Audit Selection Process. We reviewed the FY 1996 BRAC MILCON \$1.4 billion budget submitted by the Military Departments and the Defense Logistics Agency. We excluded projects that were previously reviewed by DoD audit organizations. We grouped the remaining BRAC MILCON projects by location and selected groups of projects that totaled at least \$1 million for each group.

Summary of Prior Audits and Other Reviews

Since 1991, numerous audit reports have addressed DoD BRAC issues. This appendix lists selected DoD BRAC reports.

Inspector General, DoD

<u>Report No.</u>	<u>Report Title</u>	<u>Date</u>
95-299	Defense Base Realignment and Closure Budget Data for the Realignment of the Inter-American Air Force Academy	August 29, 1995
95-297	Defense Base Realignment and Closure Budget Data for the Realignment of the Bureau of Naval Personnel, Washington, D.C., to Naval Air Station, Memphis, Tennessee	August 21, 1995
95-289	Defense Base Realignment and Closure Budget Data for the Realignment of Grissom Air Reserve Base, Indiana	August 8, 1995
95-290	Navy Cost Estimate for the Realignment of the Naval Sea Systems Command From Arlington, Virginia	August 4, 1995
95-287	Defense Base Realignment and Closure Budget Data for the Construction of the Special Purpose Vehicle Storage Facility at Vandenberg Air Force Base, California	August 4, 1995
95-286	Defense Base Realignment and Closure Budget Data for McGuire Air Force Base, New Jersey	August 4, 1995
95-285	Defense Base Realignment and Closure Budget Data for the Naval Surface Warfare Center, Indian Head, Maryland	August 4, 1995

Summary of Prior Audits and Other Reviews

Inspector General, DoD (cont'd)

<u>Report No.</u>	<u>Report Title</u>	<u>Date</u>
95-284	Defense Base Realignment and Closure Budget Data for the Move of the Naval Warfare Center, Aircraft Division, Trenton, New Jersey, to the Naval Air Warfare Center, Aircraft Division, Patuxent River, Maryland, and Arnold Air Force Base, Tennessee	August 4, 1995
95-283	Defense Base Realignment and Closure Budget Data for the Closure of Fort Devens, Massachusetts	August 1, 1995
95-282	Defense Base Realignment and Closure Budget Data for the Closure of Fort Devens, Massachusetts	August 1, 1995
95-278	Defense Base Realignment and Closure Budget Data, Fort Huachuca, Arizona, Family Practice Clinic	July 14, 1995
95-276	Defense Base Realignment and Closure Budget Data for the Closure of Naval Air Station Barbers Point, Hawaii, and Realignment to Naval Air Station Whidbey Island, Washington	July 7, 1995
95-272	Defense Information School at Fort George G. Meade Base Realignment and Closure Military Construction Project	June 30, 1995
95-258	Defense Base Realignment and Closure Budget Data for the Naval Hospital Lemoore, California	June 28, 1995
95-257	Defense Base Realignment and Closure Budget Data for the Realignment of the National Airborne Operations Center Forward Operating Base From Grissom Air Force Base, Indiana, to Wright-Patterson Air Force Base, Ohio	June 27, 1995

Summary of Prior Audits and Other Reviews

Inspector General, DoD (cont'd)

<u>Report No.</u>	<u>Report Title</u>	<u>Date</u>
95-250	Defense Base Realignment and Closure Military Construction Budget Data for Randolph Air Force Base, San Antonio, Texas	June 23, 1995
95-249	Defense Base Realignment and Closure Military Construction Budget Data for Goodfellow Air Force Base, San Angelo, Texas	June 23, 1995
95-248	Defense Base Realignment and Closure Military Construction Budget Data for Sheppard Air Force Base, Wichita Falls, Texas	June 23, 1995
95-247	Defense Base Realignment and Closure Military Construction Budget Data for the Naval Aviation Depot North Island, California	June 23, 1995
95-226	Defense Base Realignment and Closure Budget Data for the Realignment of Rickenbacker Air National Guard Base, Ohio	June 8, 1995
95-223	Defense Base Realignment and Closure Budget Data for the Closure of Marine Corps Air Stations El Toro and Tustin, California, and Realignment to Naval Air Station Miramar, California	June 8, 1995
95-222	Defense Base Realignment and Closure Budget Data for the Proposed Construction of the Automotive Vehicle Maintenance Facility, Guam	June 7, 1995
95-221	Defense Base Realignment and Closure Budget Data for the Closure of Naval Training Center San Diego, California	June 6, 1995

Summary of Prior Audits and Other Reviews

Inspector General, DoD (cont'd)

<u>Report No.</u>	<u>Report Title</u>	<u>Date</u>
95-213	Defense Base Realignment and Closure Budget Data for the Naval Training Center Great Lakes, Illinois	June 2, 1995
95-212	Defense Base Realignment and Closure Budget Data for Fort Jackson, South Carolina	June 2, 1995
95-208	Defense Base Realignment and Closure Budget Data for Realignment of Construction Battalion Unit 416 From Naval Air Station Alameda, California, to Naval Air Station Fallon, Nevada	May 31, 1995
95-205	Defense Base Realignment and Closure Budget Data for the Relocation of Marine Corps Manpower Center at Marine Corps Combat Development Command, Quantico, Virginia	May 26, 1995
95-203	Defense Base Realignment and Closure Military Construction Budget Data for the Army Reserve Center, Sacramento, California	May 25, 1995
95-198	Defense Base Realignment and Closure Budget Data for the Closure of the Underway Replenishment Training Facility, Treasure Island, California, and Realignment to the Expeditionary Warfare Training Group Atlantic, Norfolk, Virginia	May 19, 1995
95-196	Defense Base Realignment and Closure Budget Data for the Closure of Naval Air Station Alameda, California, and Realignment to Puget Sound Naval Shipyard, Washington	May 17, 1995

Summary of Prior Audits and Other Reviews

Inspector General, DoD (cont'd)

<u>Report No.</u>	<u>Report Title</u>	<u>Date</u>
95-191	Defense Base Realignment and Closure Budget Data for the Closure of Naval Reserve Readiness Center San Francisco, California, and Realignment to Naval and Marine Corps Reserve Center Alameda, California	May 15, 1995
95-172	Defense Base Realignment and Closure Budget Data for Griffiss Air Force Base, New York	April 13, 1995
95-154	Audit of Construction Budget Data for Realigning Naval Training Centers Orlando and San Diego to Various Locations	March 21, 1995
95-150	Defense Base Realignment and Closure Budget Data for Closing Naval Station Charleston, South Carolina, and Realigning Projects to Various Sites	March 15, 1995
95-051	Defense Base Realignment and Closure Budget Data for Closing Mare Island Naval Shipyard, California, and Realigning Projects to Various Sites	December 9, 1994
95-041	Defense Base Realignment and Closure Budget Data for the Closure of Marine Corps Air Stations El Toro and Tustin, California, and the Realignment to Naval Air Station Miramar, California	November 25, 1994
95-039	Defense Base Realignment and Closure Budget Data for Naval Air Station Miramar, California, Realigning to Naval Air Station Fallon, Nevada	November 25, 1994

Summary of Prior Audits and Other Reviews

Inspector General, DoD (cont'd)

<u>Report No.</u>	<u>Report Title</u>	<u>Date</u>
95-037	Realignment of the Fleet and Mine Warfare Training Center from Naval Station Charleston, South Carolina, to Naval Station Ingleside, Texas	November 23, 1994
95-029	Defense Base Realignment and Closure Budget Data for Naval Air Station Miramar, California, and Realigning Projects to Various Sites	November 15, 1994
95-010	Defense Base Realignment and Closure Budget Data for Marine Corps Air Station Tustin, California, and Realignment to Marine Corps Air Station Camp Pendleton, California	October 17, 1994
94-146	Defense Base Realignment and Closure Budget Data for Closing Naval Air Station Cecil Field, Florida, and Realigning Projects to Various Sites	June 21, 1994
94-141	Defense Base Realignment and Closure Budget Data for Naval Air Stations Dallas, Texas, and Memphis, Tennessee, Realigning to Carswell Air Reserve Base, Texas	June 17, 1994
94-127	Defense Base Realignment and Closure Budget Data for the Realignment of the Defense Personnel Support Center to the Naval Aviation Supply Office Compound in North Philadelphia, Pennsylvania	June 10, 1994
94-126	Defense Base Realignment and Closure Budget Data for the Closure of Naval Air Station Glenview, Illinois, and Realignment Projects at Fort McCoy, Wisconsin, and Carswell Air Reserve Base, Texas	June 10, 1994

Summary of Prior Audits and Other Reviews

Inspector General, DoD (cont'd)

<u>Report No.</u>	<u>Report Title</u>	<u>Date</u>
94-125	Defense Base Realignment and Closure Budget Data for the Naval Medical Center Portsmouth, Virginia	June 8, 1994
94-121	Defense Base Realignment and Closure Budget Data for Naval Air Technical Training Center, Naval Air Station Pensacola, Florida	June 7, 1994
94-109	Quick-Reaction Report on the Audit of Defense Base Realignment and Closure Budget Data for Naval Training Center Great Lakes, Illinois	May 19, 1994
94-108	Quick-Reaction Report on the Audit of Defense Base Realignment and Closure Budget Data for Naval Station Treasure Island, California	May 19, 1994
94-105	Defense Base Realignment and Closure Budget Data for a Tactical Support Center at Naval Air Station Whidbey Island, Washington	May 18, 1994
94-040	Summary Report on the Audit of Defense Base Closure and Realignment Budget Data for FYs 1993 and 1994	February 14, 1994
93-100	Summary Report on the Audit of Defense Base Closure and Realignment Budget Data for Fiscal Years 1992 and 1993	May 25, 1993

Organizations Visited or Contacted

Office of the Secretary of Defense

Office of the Under Secretary of Defense (Comptroller), Washington, DC

Department of the Army

Assistant Chief of Staff of the Army for Installations Management, Washington, DC

Army Materiel Command, Army Research Laboratory

Adelphi, MD

Fort Belvoir, VA

Woodbridge, VA

U.S. Army Corps of Engineers, Baltimore District, Construction Division,

Baltimore, MD

Auditor General, Department of the Army, Fort Belvoir, VA

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- House Subcommittee on National Security, Committee on Appropriations
- House Committee on Government Reform and Oversight
- House Subcommittee on National Security, International Affairs, and Criminal Justice, Committee on Government Reform and Oversight
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Audit Team Members

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